

Суммарије в. 6.

SOV/112-59-3-3251
2(13)

Translation from: Referativnyy zhurnal: Elektronika i radioelektronika, 1959, Nr. 3, p. 139 (USSR)

AUTHOR: Aglincev, K. K.; Balon, Z. P.; Karavayev, F. M.; Keramyan, A. A.; Konstantinov, G. P.; Prosviryakov, V. G.; Sumbatyan, O. I.; Kholtsova, Ye. A.; Shestopalova, S. A.; Yudin, M. F.; Shturzhevna, I. A.

TITLE: Metrology of Penetrating Radiations
(Метрология проникающих излучений).

PUBLICATION: V sb.: Atomn. energiya v mirnykh tselakh. Gosenergoizdat, 1957, pp. 145-161

ABSTRACT: Projects are described of the Vsesoyuznyy nauchno-tekhnicheskii skupost' (All-Union Scientific-Research Metrology Institute) aimed at the development of standard reference units for measuring ionizing radiation doses with quantum energy of 3-20 Mev with an error of 1%; (4) two standard outlets for measuring radionuclides - equivalents; (3) differential lead-ball gamma-calorimeters for measuring the activity of various preparations on the basis of their gamma radiation; (6) an isothermal calorimeter operating on the principle of liquid-dinitrogen evaporation for measuring the activity of beta preparations; (7) a differential alpha calorimeter for measuring the activity of radium preparations. An activity measurement method by counting the number of particles emitted by a preparation is being developed in two directions: counters of particles in a definite solid angle and the same in the total solid angle by means of "anti-counters." The beta-preparation counter within a definite angle permits measurement of an activity of $10^{-6} \cdot 10^{-5}$ curie with an error of 4-5%. Two alternate designs of "49"-

Card 1/3

curies are being designed: one using the principle of measuring the reagent in the range of 40-100 Mev; (2) a reference outlet for measuring the intensity of electromagnetic radiation doses having the quantum energy of 300-1,500 Mev; (3) an outlet for measuring the electron-kinetic energy of 1-20 Mev with an error of 1%; (4) two standard outlets for measuring radionuclides - equivalents; (5) differential lead-ball gamma-calorimeters for measuring the activity of various preparations on the basis of their gamma radiation; (6) an isothermal calorimeter operating on the principle of liquid-dinitrogen evaporation for measuring the activity of beta preparations; (7) a differential alpha calorimeter for measuring the activity of radium preparations. An activity measurement method by counting the number of particles emitted by a preparation is being developed in two directions: counters of particles in a definite solid angle and the same in the total solid angle by means of "anti-counters." The beta-preparation counter within a definite angle permits measurement of an activity of $10^{-6} \cdot 10^{-5}$ curie with an error of 4-5%. Two alternate designs of "49"-

Card 2/3

SOV/112-59-3-3251

Metrology of Penetrating Radiations

"counters" are described. One of them permits measuring beta preparations with an activity of $10^{-10} \cdot 5 \cdot 10^{-8}$ curie with an error of 2-4%, and the second, $5 \cdot 10^{-11} \cdot 5 \cdot 10^{-7}$ curie with an error of 1-1.5%. The outlets have been built for a measuring reactor stream from 10 down to a few tens of neutrons per sec. A gamma-spectrometer "Einsten" with an improved focusing has been built for investigation of gamma spectra in the energy range of 600-3,000 Kev. To conduct investigations in the range of 120-1,500 Kev, a 2-meter long crystal-diffractometer spectrometer of the D-mesh type has been built. A magnetic spectrometer analysis: a photocathode has been built. Measuring the half-life from a few hours to a few years is made by two methods: the method of successive measurements of gamma-activated preparations and the differential-chamber method. The results of half-life measurements for a number of isotopes are tabulated.

N.G.Z.

Card 3/3

~~Soviet Physics, Nuclear Physics~~
USSR/Nuclear Physics - Instruments and Installations
Methods of Measurement and Investigation.

C-2

Abs Jour : Referat Zhur - Fizika, No 1, 1958, 271
Author : Sumbayev, O.I.
Inst : -
Title : Measurements of the Relative Intensities of Lines of a Gamma Spectrum With a Crystal-Diffraction Spectrometer.
Orig Pub : Izmerit. tekhnika, 1957, No 2, 13-20

Abstract : The author employed a crystal-diffraction spectrometer of the same type as that of Du Mond (Du Mond, J.W.M., Review of Scientific Instruments, 1947, 18, 626), and employing the focusing principle of Cauchois. The radius of curvature of the quartz crystal, compressed between a convex and concave steel cylindrical mirror, amounted to approximately two meters. The source of gamma quanta was placed at the focal circle of the instrument. The diffracted beam propagated under a small angle (from several degrees

Card 1/3

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 271

APPROVED FOR RELEASE 08/26/2000 CIA-RDP86-00513R001653920002-3"

beam, whose retardation was effected by a multiple-slit collimator. The diffracted protons were registered by means of a luminescent gamma spectrometer with a CsI (Tl) crystal.

A preliminary calculation of the change in the integral reflection coefficient of gamma rays from the quartz crystal as a function of the wavelength has shown that the above dependence actually is close to quadratic, as was experimentally observed earlier by other investigators. The bent plate becomes similar to a mosaic crystal as a result of the bending of the reflecting planes.

The resolving power of the spectrometer, as a function of the energy, is of the form $\delta = 1.6 \times 10^{-3} E$ (δ in percent and E in kev). With the aid of the above spectrometer, measurements were made of the relative

Card 2/3

intensities of the lines in the gamma ray spectra of Ir^{192} , Ta^{182} , and Ta^{183} , with sources on the order of 1 Curie.

S. S. S. R. C. I.

48-7-12/21

AUTHOR: Sumbayev, O.I.

TITLE: The Precise Definition of the Relative Line Intensities in the Spectrum of the γ -Radiation of Ta¹⁸² (Utochneniye otnositel'nykh intensivnostey liniy v spektre γ -izlucheniya Ta¹⁸²)

PERIODICAL: Izvestiya Akad. Nauk SSSR, Ser. Fiz., 1957, Vol. 21, Nr 7,
pp. 987 - 989 (USSR)

ABSTRACT: The relative intensities of the lines in the spectrum of the γ -radiation of the Ta¹⁸² were for the first time measured by means of the crystal diffraction spectrometer by Dumonde and later on by the author on an analogous spectrometer of the Institute for Metrology in Leningrad. As may be seen from table 1 the data from these works differ rather much from each other, however, this method is to be considered as the only suitable one. Details of the theoretical calculation of the spectral sensitivity curve according to both methods are given, in which connection it has to be reckoned with an error of 20 to 30 %. The results of the measurement of the spectral line surfaces by means of a crystal diffraction spectrometer are represented of figures 1 and 2 and the comparative results of the theoretical

Card 1/2

48-7-12/21

The Precise Definition of the Relative Line Intensities in the Spectrum of the
 γ -Radiation of Ta¹⁸²

and experimental values of the light intensity of the devices are given in table 2. The relative line intensities in the spectrum of the γ -radiation of Ta¹⁸², checked according to the experimentally corrected curve of the spectral sensitivity, are given in table 1 and the relative line intensities in the spectrum of Ir¹⁹², also checked, are given in table 3. The satisfactory equality with the values obtained from various other methods is to be considered a further confirmation of the correctness of the spectral sensitivity curve. There are 3 tables, 2 figures and 11 references, 6 of which are Slavic.

ASSOCIATION: All-Union Scientific Research Institute for Metrology imeni D.I. Mendeleyev
(Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendeleyeva)

AVAILABLE: Library of Congress

Card 2/2

SUMBAYEV, O.I.; KONSTANTINOV, A.A.

Scintillation γ -spectrometer containing PEU-19 type photo-electric multiplier and CsI(Tl) crystal. Trudy VNIIM no.30:
117-131 1957.
(Scintillation spectrometry) (Gamma rays)
(Photoclectric multipliers)

AUTHOR SUMBAYEV,O.I. PA - 2667
TITLE Measurement of the Relative Intensities of γ -lines
by a Twometer Crystal Diffraction γ -Spectrometer. (Izmereniya otnozitel'nykh intensivnostey liniy na douchmetrovom kristall-diffraktsionnom γ -spektrometre, Russian)
PERIODICAL Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 32, Nr 2,
pp 247 - 250 (U.S.S.R.) Received: 5 / 1957 Reviewed: 6 / 1957
ABSTRACT The present work furnishes the results of measurements of the relative intensities of some lines in the γ -spectra of Ir¹⁹², Ta¹⁸², and Ta¹⁸³. The high resolving power of the spectrum in connection with the extraordinary simplicity of the spectra also permits the study of complicated spectra with lines which are close to each other. The detailed investigations carried out by the author in the case of the energies 191 (In¹¹⁴), 279 (Hg²⁰³), 412 (Au¹⁹⁸) and 1190 keV (this being the average energy of the groups of the hard lines in the spectrum of Ta¹⁸²) confirm the results found by Du Mond et al. (Phys. Rev. 77, 475 (1950)) and led to the relation $F_i = k \cdot E^{-n}$. Here F_i denotes the reflection coefficient, E - the energy of the γ -quanta and it holds

Card 1/2

PA - 2667

Measurement of the Relative Intensities of γ -Lines
by a Twometer Crystal Diffraction γ -Spectrometer.

$$n = 1,85 \pm 0,04.$$

The spectrum of Ir¹⁹²: was investigated by means of a source with the activity 1 Cu in form of a large foil of 30 x 5 x 0,2 mm. The results obtained by the author for this spectrum (which were obtained by means of a crystal diffraction spectrometer of the Du Mond type) agree with the data obtained by other authors (with the help of magnetic spectrometers).

The spectra of Ta¹⁸² and Ta¹⁸³ were investigated with the help of a source shaped like a large foil of 30 x 5 x 0,1 mm irradiated by neutrons. Besides the spectrum of Ta¹⁸² also the spectrum of Ta¹⁸³ is existing. Ta¹⁸³ was produced as a result of a double successive capture of neutrons:

Ta¹⁸¹ (n γ) Ta¹⁸² (n γ) Ta¹⁸³. Several tables contain the relative intensities of the lines in the spectrum of Ir¹⁹².

All-Soviet Scientific Research Institute for Metrology

Card 2/2

ASSOCIATION

PRESENTED BY

SUBMITTED

22.9.1956

AVAILABLE

Library of Congress.

SUMBAYEV, O.I.
USSR/Solid State Physics - Structural Crystallography

E-3

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 901
Author : Sumbayev, O.I.
Inst : All-Union Scientific Research Institute for Metrology
Title : Reflection of Gamma-Rays from Bent Quartz Plates.
Orig Pub : Zh. eksperim. i teor. fiziki, 1957, 32, No 6, 1276-1279

Abstract : Using a two meter crystal-diffraction gamma spectrometer, the author investigated how the coefficient of reflection from the planes 1340 of a quartz crystal, bent in a cylinder with a radius of two meters, depends on the wavelength; the quadratic character of this dependence is confirmed. It is shown that in a theoretical analysis of the effect it is necessary to take into account the curving of the reflecting planes. The plate is broken up in thickness into a series of independently reflecting layers, whose thickness is less than the distance between distances of primary attenuation, and which behaves like a mosaic crystal with small primary extinction. Thus, the previously not-understood fact of the quadratic dependence of the coefficient of reflection in the wavelength finds a natural explanation.

Card 1/2

SOV-120-58-3-4/33

AUTHOR: Sumbayev, O. I.

TITLE: Some Problems in the Theory of Crystal Diffraction
γ-Spectrometers (Nekotoryye voprosy teorii kristall-
difraktsionnykh γ-spektrometrov)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 3, pp 27-31
(USSR)

ABSTRACT: An analysis is made of some of the parameters of the crystal diffraction γ-spectrometer of the type used by Du-Mond (Refs.1 and 2), taking into account the effect of distortion of the reflecting planes of the bent crystal in the way described by the present author in Refs.3 and 4. In the latter papers the author has shown that the hypothesis of 'plane sections' which was used by Lind, West and Du-Mond in their analysis of diffraction at a bent crystal is incorrect in this case. An analysis of this problem has led to the following expression for the displacements along the Z-axis (Fig.1) in a quartz plate bent elastically over a cylinder:

Card 1/5

SOV-120-58-3-4/33

Some Problems in the Theory of Crystal Diffraction γ -Spectrometers

$$w = Ky^2$$

$$K = \frac{1}{2\rho} \frac{a_{14}^2 \sin 6\varphi}{a_{11}^2 a_{44} - a_{14}^2 \sin^2 3\varphi}, \quad (1)$$

where ρ is the radius of the cylinder, a_{ij} are the deformation coefficients, φ is the angle between the Y-section and large faces of the plate. Neglecting the displacements along the XY-axes the equation of the surface into which the reflecting planes have been bent turns out to be:

$$z = Ky^2.$$

The distortion of the reflecting planes limits the number of planes which simultaneously take part in the reflection. The thickness of a layer which "simultaneously" takes part in the reflection is:

$$\Delta z = \sqrt{d/2\pi K}, \quad (3)$$

Card 2/5

SOV-120-58-2-4/33

Some Problems in the Theory of Crystal Diffraction γ -Spectrometers

where d is the interplanar distance. The intensity of reflection from such a layer is proportional to:

$$[r_0 P(F/v) \lambda \Delta y / \cos \delta]^2 , \quad (4)$$

where $r = e^2/mc^2$, P is the polarisation coefficient, F is the structure factor, v is the volume of a unit cell, λ is the wavelength and θ is Bragg's angle. The width of the diffraction maximum for a plate whose thickness is T is given by:

$$\Delta\theta = 2KT \quad (5)$$

and the integral reflection coefficient is given by:

$$R_\theta \sim 2KT \left[r_0 P(F/v) \frac{\lambda \Delta y}{\cos \delta} \right]^2 = \frac{P^2}{\cos^2 \delta} r_0^2 \left(\frac{F}{v} \right)^2 dT \lambda^2 \quad (6)$$

By taking into account the distortion of the reflecting

Card 3/5

SOV-120-58-3-4/35

Some Problems in the Theory of Crystal Diffraction γ -Spectrometers
planes one finds that the natural width of the diffraction maximum (Eq.5) may become the main factor determining line width and the resolving power of the instrument. In fact, the aberration associated with the natural width of the diffraction maximum and which remains unchanged if one uses any small element of the crystal surface is given by:

$$\Delta l_{loc} = 2Kt\rho$$

where Δl_{loc} denotes the local aberration. It is shown that an increase in the crystal thickness beyond the value $t/2K\rho$ leads to poorer resolution, other things being equal (t = thickness of source). The theory given in the present paper is compared with experiment in Fig.4, where (1) is the theoretical curve and (2) is the experimental one. As can be seen the two line widths agree quite well.

Card 4/5

SOV-120-58-3-4/33

Some Problems in the Theory of Crystal Diffraction γ -Spectrometers

There are 4 figures and 14 references, of which 10 are English and the rest are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii (All-Union Scientific Research Institute of Metrology)

SUBMITTED: September 24, 1957.

1. Gamma ray spectrum analyzers--Theory 2. Crystals--
Reflective effects 3. Diffraction--Mathematical analysis

Card 5/5

AUTHORS:

Avotina, M. F., Sumbayev, O. I.

SOV/48-22-7-24/26

TITLE:

Precision Measurement of the Energies of γ -Lines at 1,17 and
1,33 MeV From Co⁶⁰, at 482 keV From Hf¹⁸¹, and at 158 and 208
keV From Au¹⁹⁹ (Pretzisionnyye izmereniya energiy γ -Linii 1,17
i 1,33 MeV Co⁶⁰; 482 keV Hf¹⁸¹; 158 i 208 keV Au¹⁹⁹)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958,
Vol. 22, Nr. 7, pp. 879 - 882 (USSR)

ABSTRACT:

A basic source of error in the measurements of the wavelengths
(energies) with the two-meter crystal diffraction spectrometer
of the VNIIM (Refs 1,2) are the elastic and inelastic de-
formations in the measuring triangle. Scale deviations from
linearity caused by deformations are particularly dangerous.
In order to eliminate the influence of deformable mechanical
joints an optical reading system was built. Its principal lay-
out is exposed. The errors connected with the deformation and
the inaccuracy of the sine measuring mechanism were completely
eliminated. The mean square deviation in the measurements
amounted to $\pm 0,005$ mm amounted to 0,006 m \AA . The wavelength
of the line of at 412 keV from Au¹⁹⁸ is assumed as

Card 1/2

1/2

Precision Measurement of the Energies of γ -Lines at SOV/48-22-7-24/26
1,17 and 1,33 MeV From Co⁶⁰, at 482 keV From Hf¹⁸¹, and at 158 and 208 keV
From Au¹⁹⁹

$\lambda = 30,105 \pm 0,003 \text{ m}\AA$ (obtained in reference 3 at the crystal diffraction spectrometer of Du Mond). The constant k of this apparatus is found to be $0,58862 \pm 0,00007 \text{ m}\AA \text{ mm}^{-1}$. The measurements of the wave lengths of the lines of 1,17 and 1,33 MeV from Co⁶⁰ and of 482,0 keV from Hf¹⁸¹ are given. The lines of 158 and 208 keV from Au¹⁹⁹ are not within the range of optical reading (240 - 1500 keV). In this case the measurement is performed by varying the position of the source carrier and that of the crystals on calibrated millimeter scales. Au¹⁹⁹ was produced by an irradiation of Au¹⁹⁷ with thermal neutrons by a double subsequent neutron capture:

Au¹⁹⁷(n γ) Au¹⁹⁸(n γ) Au¹⁹⁹. The lines from Au¹⁹⁹ occurred simultaneously with the line of 412 keV from Au¹⁹⁸, which was used as identification line. The second and the third order of these lines furnished reference points at energies, which amount to $1/2$ or $1/3$ of the ground energy. Thus it was possible to determine a possible nonlinearity and to eliminate it.

Card 243

7/2

A-U Sci Res Dual Metrology in D. I. Mendeleev

24(7)
AUTHOR:

Sumbayev, O. I.

SOV/48-23-7-20/31

TITLE:

On the Theory of Focusing Crystal-diffraction Spectrometers
(K teorii fokusiruyushchikh kristall-difraktsionnykh
spektrometrov). Choice of the System of Reflecting Surfaces of a
Bent Crystal (Vybor sistemy otrazhayushchikh ploskostey
izognutogo kristalla)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
Vol 23, Nr 7, pp 880-882 (USSR)

ABSTRACT:

In such devices, the crystal blades are usually determined by the interplanar spacing and the structure factor. The formula for the reflection coefficient of an ideal crystal is given (1). In other papers (Refs 1 and 2), the dependence of the reflection coefficient of a cylindrically bent quartz crystal on the wave length was investigated, and the relation obtained for the reflection coefficient was considered in formula (2). This equation is to be obtained theoretically for a cylindrically bent ideal crystal by calculating the curvature of the reflecting surface. The equation (3) is used as a basis, and the coefficient f occurring in this equation is investigated. Formula (4) is indicated for this coefficient; this formula

Card 1/2

On the Theory of Focusing Crystal-diffraction
Spectrometers. Choice of the System of Reflecting Surfaces of a Bent Crystal

SOV/48-23-7-20/31

considers the position taken by the reflecting blade in the original crystal. The values determined for the coefficient f of an α -quartz are compiled in table 1. The investigation shows that the reflection coefficient depends on the square of the wave length. Finally, some factors are mentioned which must be considered in the investigation of the reflection coefficient, and a correction for deviations from normality is put forward for the coefficient f . There are 3 figures, 1 table, and 5 references, 2 of which are Soviet.

Card 2/2

21.5300

81993

S/120/60/000/03/026/055
E041/E521

AUTHORS: Netsetskiy, A.M. and Sumbayev, O.I.

TITLE: Instrument for Automatically Recording the Number of Pulses when the Counting Rate is Small

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No 3,
pp 93-95

ABSTRACT: Counting rate meters which depend on the charging of capacitors are unsuitable when the pulse rate is less than 1 per minute. The principle exploited here is described in detail in Ref 1 and consists of a multi-position switch controlling pulses as in Fig 1. A set of pulse trains at repetition frequencies f , $2f$... $64f$ are normally inhibited by the conducting halves of a set of binary counter stages. This counter is driven by the pulses to be counted. If for example 7 pulses arrive, then trains f , $2f$ and $4f$ are released and over unit time $7f$ pulses appear at the output. These go to a standardizer where they are converted to a fixed amount of electricity per pulse and the voltage across R is recorded on a self-balancing potentiometer. Apart from Card 1/2 recorded on a self-balancing potentiometer. Apart from

* J. Millman, H. Taub, PULSE AND DIGITAL CIRCUITS, McGraw-Hill, 1956, pp. 422-424

S/056/62/042/001/018/048
B104/B102

AUTHORS: Simbayev, O. I., Smirnov, A. I., Zykov, V. S.

TITLE: Mössbauer effect on tungsten isotopes

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 1, 1962, 115-123

TEXT: In the present study of the Mössbauer effect, the intense lines near the resonance energy were examined with a focusing crystal diffraction spectrometer of the Di Menie type with a resolution of several tenths of a percent. The experimental arrangement also permitted customary measurements by separating the resonance lines with a scintillation counter. The dependence of nonresonant nuclear resonance absorption at the 100.09-kev level of W^{183} and at the 99.07-kev and 46.48-kev levels of W^{183} on the relative velocity between the source (Ta) and the absorber (#) was investigated. In contradistinction to the findings of de Nercy et al. (C R Paris 250, 103, 1960), the observed Mössbauer effect was in no way less than the theoretical value. The Debye temperatures calculated

1000 1000

Mossbauer effect on tungsten isotopes

S/056/62/042/001/018/048

B104/B102

from the magnitude of the effect, were found to be 283^{+28}_{-6} deg for the tantalum source, and 320^{+70}_{-40} deg for the tungsten absorber. The total peak width of the 100.09-kev level fits data obtained by the Coulomb excitation technique and by delayed coincidences, but is not consistent with the results of a previous experiment on nuclear resonance absorption. D. M. Kaminker is thanked for interest, A. A. Netsetskii and A. S. Rybnikov for assistance in setting up the experimental arrangement and in measurements, as well as the staff of the BBPM (VVRM) reactor at FTI AS USSR imeni A. F. Ioffe, K. P. Mitrofanov and V. S. Shpinel' (ZhETF 40, 983, 1961) are mentioned. There are 6 figures, 1 table, and 13 references: 4 Soviet and 9 non-Soviet. The four most recent references to English-language publications read as follows: L. L. Lee, L. Meyer-Schutzmeister, J. P. Schiffer, Phys. Rev. Lett., 2, 223, 1959; A. W. Sunyar, Phys. Rev., 98, 653, 1955; F. K. McGowan, P. H. Stelson, Phys. Rev., 109, 901, 1958; E. Cotton, J. Phys. Rad., 21, 265, 1960.

ASSOCIATION: Leningradskiy fiziko-tehnicheskiy institut Akademii nauk SSSR (Leningrad Physicotechnical Institute of the Academy of Sciences USSR)

Carlo 7/4

SUMBAYEV, Oleg Igorevich; ANDREYENKO, Z.D., red.; VLASOVA, N.A.,
tekhn. red.

[Crystal-diffraction gamma-ray spectrometers] Kristall-
difraktsionnye gamma-spektrometry. Moskva, Gosatomiz-
dat, 1963. 109 p. (MIRA 16:7)
(Gamma-ray spectrometer)

L 40771-65 EWA(k)/EWT(1)/IEO(t) LRB
ACCESSION NR: AP5006491

S/0056/65/048/002/0445/0453

20
16
B

AUTHORS: Sumbayev, O. I., Mesentsev, A. F.

TITLE: Chemical shift of the K-series x-ray lines of tin

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48,
no. 2, 1965, 445-453

TOPIC TAGS: tin, chemical shift, Mossbauer effect, x ray spectrum

ABSTRACT: Values of -0.19 ± 0.01 , -0.18 ± 0.02 , and -0.22 ± 0.02 eV were obtained for the chemical shifts of the $K\alpha_1$, $K\alpha_2$, and $K\beta_2$ lines, measured for Sn and SnO_2 with a Cauchois spectrometer and a scintillation detector fitted with a device for alternately introducing sources for comparison. The relative accuracy is 0.00006%. The basic diagram of the equipment is shown in Fig. 1 of the Enclosure. The energy to which the equipment is tuned is in first approximation independent of the position of the source. From the previously obtained

Card 1/3

L 40771-65
ACCESSION NR: AP5006491

shift of the L_{III} level for Sn-SnO₂ (C. Nordling, Ark. for Fys., v. 15, 241, 1959), the authors determined the shifts relative to the Fermi levels of the K, L_{II} and M_{III} levels to be -1.3 ± 0.3, -1.1 ± 0.3, and -1.1 ± 0.3 eV respectively. The possibility of employing a similar method for observing isotopic and isomeric shifts of x-ray lines and the effects associated with motion of the source and recoil in the emission or absorption of the quanta, are also considered. "The authors thank D. M. Kaminker for interest, I. S. Kirin for advice and collaboration in the preparation of the source, and A. I. Smirnov for a discussion of the results and prospects of this work."

Orig. art. has: 3 figures, 5 formulas, and 6 tables.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii Nauk SSSR (Physical-technical institute, Academy of Sciences SSSR)

SUBMITTED: 07Aug64

ENCL: C1

SUB CODE: QP, DC

NR REF Sov: 004

OTHER: 009

Card 2/3

L 40315-65

ACCESSION NR: AR4044802

divided by i . When, however, a remainder d from the division of C_k by k or by i exists, the above formulas will take this shape:

$$M = \left(\frac{C_k^m - d}{i} \right)^{l-1} \cdot \left(\frac{C_k^m - d}{i} + d \right)$$

$$M = \left(\frac{k-d}{i} \right)^{l-1} \cdot \left(\frac{k-d}{i} + d \right).$$

Curves of the number of CCs vs. the number of code frequencies and the number of packets are presented. APC characteristics with and without group selection are given. It is stated that the decoders for the case of group-selection codes are simpler. A high noise immunity of APC is noted; no clock pulse is needed in transmitting CCs. The APC system is recommended for telemechanical systems, primarily for distributed-client systems. Two illustrations.

SUB CODE: DP

ENCL: 00

llc
Card 3/3

100-12-2 500(0-100)-1/200(1)/200(1) Pg-4/Pes DMAP KH
AP-601301993

UR/0048/65/029/005/0739/0759

AUTHOR: Sumbayev, O.I.; Alekseyev, V.L.; Kaminker, D.M.; Smirnov, A.I.; Steburov, V.A.

TITLE: Investigation of the excited states and the isomeric state of rhodium 104 by observation of the gamma rays from neutron capture
 Report, 15th Annual Conference on Nuclear Spectroscopy and the Structure of Nuclei, Jan 27-Feb 1, 1965, Vinogradov, Jan 2 Feb 1965

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.29, no.5, 1965,
739-769

TOPIC TAGS: gamma ray spectrum, neutron capture, rhodium

ABSTRACT: The gamma rays emitted in the $\text{Rh}^{103}(n,\gamma)\text{Rh}^{104}$ reaction were observed with a 4 m focal length bent quartz crystal spectrometer, using the NaI:Tl crystal scintillation detector. Rh¹⁰⁴ was chosen for investigation because it is a medium-mass odd-odd nucleus; a heavy odd-odd nucleus (Au^{183}) had already been investigated, and light nuclei are more suitably investigated by means of (d,p) reactions.

Card 1/3

L 58784-65

ACCESSION NR: APM013993

tions. The energies and intensities of 158 gamma rays are tabulated, of which 149 are ascribed to the investigated reaction. The present work raises the number of known gamma transitions in Rh¹⁰⁴ to 193. The energies of 39 of the lines are compared with measurements of G. Buschhorn (Z.Naturforsch. 12a, 241, 1962). The two sets of data are shown to agree within the limits of the experimental error, but Buschhorn's data are regarded as the more accurate and small systematic differences are ascribed to the present measurements and were, accordingly, removed. Estimated errors of the energy measurements range from 10 to 900 eV (for ten of the lines no estimated errors are given). The measured relative intensities were converted to absolute intensities by comparison with the 556 keV Pd¹⁰⁴ line. A partial level and transition scheme for Rh¹⁰⁴ was derived from the measured energies by a "general sum-difference" method similar to that described by B. Hamerle et al. (Ann.Physik, 13, 284, 1961). These calculations are discussed in some detail. The resulting scheme contains 14 levels below 736.09 keV and accounts for 38 of the transitions. A fine-structure grouping of the lines was observed, reminiscent of that found in

Card 2/3

L 5478u-65

ACCESSION NR: AF5013993

¹⁹⁸Au by Hamermesh et al. (loc.cit.supra). This phenomenon is discussed at some length. "The authors are grateful to O.Schult for sending a prepublication list of the gamma lines, subsequently published by U.Gruber (Zeitschrift fuer Physik,178,472,1964), to L.V. Gorbachev, A.M.Derpidov and I.V.Estulin for discussing the results of the work, and to V.G.Zaikin for assistance in performing the measurements." Orig.art.has: 19 formulas, 10 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NR REF Sov: 009

OTHER: 010

Card 3/3

I, 6506-66 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG
ACCESSION NR: AP5021110

UR/0056/65/049/002/0459/0469

AUTHOR: Sumbayev, O. I.; Mezentsev, A. F.

TITLE: Experimental observation of the isotopic shift of the K_{α_1} x ray line of molybdenum

SOURCE: Zhurnal experimental'noy i teoreticheskoy fiziki, v. 49, no. 2, 1965,
459-469

TOPIC TAGS: molybdenum, x ray diffraction, x ray measurement, line shift, x ray spectrum

ABSTRACT: The volume isotopic shift of the K_{α_1} x-ray line of the molybdenum isotopes Mo⁹², Mo⁹⁴, and Mo¹⁰⁰ was measured by a^{a1} procedure previously used by the authors to measure the chemical shift of the K-series x-ray lines of comparatively heavy isotopes (ZhETF v. 48, 445, 1965). The measurement procedure and the apparatus are described in detail. The differences in the energies of the K_{α_1} line for Mo⁹²O₃--Mo¹⁰⁰O₃, Mo⁹⁴--Mo¹⁰⁰O₃, and Mo⁹²O₃--Mo⁹⁴O₃ turned out to be respectively 0.030 \pm 0.005, 0.027 \pm 0.008, and 0.001 \pm 0.005 ev. The relative sensitivity of the method is 0.00003% and the results agree with the theory within 15%. Comparison of

Card 1/2

L 6506-66
ACCESSION NR: AP5021110

the experimental errors with theoretical estimates of the effect for a number of other elements indicates that the isotopic shift of x-ray lines can be used as a new method of investigating nuclear properties, permitting a better and more exact separation of the nuclear part of the effect than the optical isotopic shift. "The authors thank D. M. Kaminker for interest in the work and a discussion of its results, A. I. Yegorov for useful advice in source preparation and the staff members of his laboratory, V. Ye. Koval'tsov and G.N. Popova, for control analyses of the isotopic composition of our samples." Orig. art. has: 4 figures, 6 formulas, and 3 tables.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR
(Physicotechnical Institute, Academy of Sciences SSSR)

SUBMITTED: 27Mar65

ENCL: 00

SUB CODE: OP.

NO REF Sov: 005

OTHER: 021

nw
Card 2/2

L 34834-66 EAT(m) EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP6014024

SOURCE CODE: UR/0056/66/050/004/0861/0870

AUTHOR: Sumbayev, O. I.; Mezentsev, A. F.; Marushenko, V. I.; Petrovich, Ye. V.;
Ryl'nikov, A. S.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR (Fiziko-tehnicheskiy
institut AN SSSR)

TITLE: Chemical shift due to screening of the inner levels of heavy elements

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 4, 1966,
861-870

TOPIC TAGS: heavy element, inner level, screening, chemical bonding, atomic
structure, atomic property, tin, molybdenum, tungsten

ABSTRACT: Chemical shifts of the K_{α} , x-ray lines of Mo-MoO₃, Sn-SnO₂, and W-WO₃, were measured by a method based on alternately introducing the compared sources into the field of vision of the Cochois diffraction spectrometer with compensated aperture aberrations. The $E(K_{\alpha})$ energy differences for the metal and oxide are respectively $+192 \pm 7$, -152 ± 5 , and $+110 \pm 33$ Mev. Thus, the results previously obtained by the authors (O. I. Sumbayev, A. F. Mezentsev, ZhETF, 48, 445, 1965) for Sn-SnO₂ now have been confirmed by an improved experimental arrangement. It is shown that despite the usually accepted viewpoint (A. Sandstrom, Handb. der Phys., 30, 158, 1957), the inner (K, L) atomic level shifts, due to the formation of chemical bonds, are appreciable, including the heaviest elements. Moreover, their absolute value remains approximately

Card 1/2

L 34834-66

ACC NR: AP6014024

constant with a growing Z. This conclusion agrees with the theoretical estimates made by the authors of this document. The chemical effects observed are due to internal screening (S. M. Karal'nik, Izv. AN SSSR, ser. fizich., 20, 89, 1959; CIA-RDP86-00513R001653920002-3" internal screening (S. M. Karal'nik, Izv. AN SSSR, ser. fizich., 21, 1445, 1957). It was mentioned that the effect may be used for investigating the nature of the chemical bond as was done previously in the case of light elements. The authors thank Professor D. M. Kaminker for his interest in this work and discussions of the results and V. S. Zykova and Yu. P. Smirnova for carrying out measurements. Orig. art. has: 2 figures, 4 formulas, and 5 tables. [Based on authors' abstract.] [NT]

SUB CODE: 20, 11/ SUBM DATE: 27Oct65/ ORIG REF: 007/ OTH REF: 012

Card 2/2

SUMBAYEV, V. S.

Sumbayev, V. S. - "The phase activity of 'tireokrin' on basic exchanged, lung ventilation, the vapor pressure of the alveolar air, and the pulse rate", Trudy Medinstituta (Izhev. gos. med. in-t), Vol. VI, 1949, p. 112-12.

SO: I-1110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

SUMBAYEV, V.S.

Sumbayev, V. S. - "The effect of continuous doses of thyroserine on the movement and reflex of chronic invalids," Trudy Medinstituta (Izhev. gos. med. in-t), Vol. VII, 1949, p. 11-18

SO: U-3950, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

SUMBAYEV, V.S. (Chita)

Blood pressure reaction to the intra-arterial and intravenous administration of adrenaline in experimental hyper- and hypothyroidism.
Pat. fiziol. i eksp. terap. 5 no.6:57-58 N-D '61. (MIRA 15:4)

1. Iz kafedry patologicheskoy fiziologii (zav. - dotsent V.A.Kozlov)
Chitinskogo meditsinskogo instituta.
(ADRENALINE) (BLOOD PRESSURE) (THYROID GLAND--DISEASES)
(HYPERTHYROIDISM)

SUMBAYEVA, T. I.; PETROV, T. V.

"The control rods worths and the delayed neutron importance coefficients of the reactor VVR-1."

Report presented at the Symposium on Physics and Material Problems of Reactor Control Rods, Vienna, 11-15 Nov 63.

SUMERA, J., TEYSCHL, O.

Treatment of alimentary toxicosis by means of subcutaneous infusions.
Pediat. listy 5:3, May-June 50. p. 131-8

1. Of the Children's Clinic of Masaryk University in Brno.

CWL 19, 5, Nov., 1950

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653920002-3

CHIUPACKOVA, V.; RICNY, D.; SUMBERA, J.; TEYSCHL, O.

Five suggestions for the improvement of pediatric therapy. Cesk. nemoc.
18 no. 6:130-133 Aug 1950. (CLML 23:2)

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653920002-3"

SUMBERA, J.

Transplantation of bone marrow in children with thrombocytopenic
purpura. Lek.listy 6 no.3:85-87 1 Feb 51. (CLML 20:5)

1. Of the Children's Clinic (Head--Prof.O.Teyschl,M.D.)of Masaryk University, Brno.

~~SUMBERA, J.~~

~~Sulfonamides. Pediat. listy, Praha 8 no.6:349-352 Dec 1953. (CML 25:5)~~

1. Of the MZ Commission on Drug Application.

SUMERA, Jan. As.Dr

Transfusion into the spongiosa in infants with alimentary
toxicosis. Pediat. listy, Praha 9 no.3:137-143 May-June 54.

1. Detka klinika MU v Brne; prednosta prof. Dr. Oskar Teyschl
(INFANT NUTRITION DISORDERS, therapy
blood transfusion into spongiosa)
(BLOOD TRANSFUSION, in various diseases
nutrition toxicosis in inf., transfusion into spongiosa)

SUMHERA, JAR...

Congenital cardiovascular defects. Scripta med., Brno 27 no.5:
119-128 1954.

1. Detska klinika lek. fak. MU v Brne; prednosta prof. MUDr
Otakar Teyachl
(CARDIOVASCULAR DEFECTS, CONGENITAL)

AKUBCOVA, I., Doc.Dr. ; PADOVCOVA, MUDr; SUMBERA, J., MUDr; SYROVATKA,
A., MUDr

Heart diseases in children. Cesk.pediat. 10 no.3:200-206 Apr 55.

1. z I. detske kliniky v Bratislave, II. detske kliniky v Praze,
I. detske kliniky v Brne a ministerstva zdravotnictvi.
(HEART DISEASE, in infant and child)

SUMBERA, Doc., Dr.; TEYSCHL, O., Akademik

Kaglusal as a new dietetic preparation for the treatment of
diarrhea. Cesk. pediat. 11 no.4:260-266 Apr 56.

1. II. Klinika detskych nemoci Masarykovy university v Brne,
Cerna Pole, prednosta: Prof. Dr. Otakar Teyschl.

(DIARRHEA, in infant and child,
ther., dietetic method with dried carrot, sugar,
starch & salt mixture. (Cs))

(DIETS, in various diseases,
diarrhea in inf., dried carrot, sugar, starch &
salt mixture. (Cs))

SUMBERA, Jan, Doc., Dr.

New methods of rehydration and remineralization of the organism
during large fluid losses. Cesk. pediat. 12 no.1:54-57 Jan 57.

1. II. detska klinika Masarykovy university v Brne, prednosta
akademik Otakar Teyachl.

(DEHYDRATION, in inf. & child
in toxicoses, ther., rehydration & remineralization
methods (Cx))

(INFANT NUTRITION DISORDERS, ther.
rehydration & remineralization methods in toxicoses
with dehydration (Cx))

RICHTY, Drahoslav; SUMBEA, Jan; TEYSCHL ML, Otakar

Streptokinase skin test in diagnosis of rheumatism in children.
Cesk. pediat. 12 no.8:677-681 5 Aug 57.

1. II detska klinika Masarykovy univerzity v Brne, prednosta akademik prof. Dr. Otakar Teyschl Biochemicke oddeleni krajske detske nemocnice v Brne, prednosta prim. Dr Otakar Teyschl ml.

(RHEUMATISM in inf. & child,
diag., streptokinase skin test (Cs))

(STREPTODORNASE AND STREPTOKINASE
streptokinase skin test in diag. of rheum. in child. (Cs))

SUMBERA, Jan; PODHRADSKI, Olga

Progress in the treatment of purulent infections in children with
dornokinase. Cesk. pediat. 13 no.7:594-596 Aug 58.

1. II. detska klinika MU v Brne, prednosta akademik O. Teyschl.
J. S., II. det. klinika, Brno.

(MICROCOCCAL INFECTIONS, in inf. & child
ther., streptodornase & streptokinase in purulent infect.
(Cx))

(STREPTODORNASE AND STREPTOKINASE, ther. use
purulent micrococcal infect. in child. (Cx))

SUMBERA, Jan

Neural complications in congenital cyanotic cardiac defects. Cesk.
pediat. 14 no.12:1080-1083 D '59.

1. II.detska klinika lek.fak.University v Brne, prednosta akade-
mik Otakar Teyschl.
(BRAIN dis.)
(HEART DEFECTS CONGENITAL compl.)

BLAZEK, Frantisek; HERDEGEN, Ludvik; HLOUSKOVA, Zdenka; SUMBERA, Jan

Chronic diffuse interstitial pneumonia in childhood. Cesk.pediat.
15 no.6/7:528-538 J1'60.

I. IV. detska klinika v Praze, prednosta prof.dr. F.Blazek.
II. detska klinika v Praze, prednosta prof.dr. J.Houstek.
II. detska klinika v Brne, prednosta akademik O. Teyachl.
(PULMONARY FIBROSIS in inf & child)

BRAZDA, L.; OLEJNIK, O.; SUMBERA, J.; DLUHOS, M.

Successful extirpation of a pulmonary hamartia from the pericardium.
Rozhl. chir. 40 no. 7:480-482 Jl '61.

1. II chir. klinika University J. Ev. Purkyne v Brne, prednosta prof.
MUDr. Jan Navratil II detska klinika University J. Ev. Purkyne v Brne,
prednosta akademik prof. MUDr. O. Teyschl; II patologicko-anatomicky
ustav v Brne, prednosta doc. MUDr. M. Dluhos.

(LUNG abnorm) (PERICARDIUM abnorm)

SUMBERA, Jan

Our experience with indications and postoperative course in children operated on for simple or complicated defects of the ventricular septum. Cas.lek.cesk 100 no.18:561-565 5 My '61.

1. II.detska klinika v Brne, prednosta akademik Otakar Teyschl.

(HEART SEPTUM abnorm)

SUMBERA, Jan; NOVA, Bozena; RICNY, Drahoslav; VALENTA, Jiri; VITAK, Bohumil

Our experience with patent ductus arteriosus in children. Cesk. pediat.
17 no.4:332-338 Ap '62.

1. II detska klinika lekarske fakulty University J. Ev. Purkyne v Brne,
prednosta akademik O. Teyschl.

(DUCTUS ARTERIOSUS surg)

SRBOVA, D., MUDr.; BOR, I., doc. MUDr.; BREZINA, Z., MUDr.; RINGEL, J., doc.
MUDr.; SUDA, MUDr.; SUMBERA, J., doc. MUDr.

Rheumatism in children. Zdrav. aktuality no.147:50-61 '61.
(RHEUMATISM in inf & child) (HOSPITAL OUTPATIENT SERVICE)
(PEDIATRICS hosp & clin)

CZECHOSLOVAKIA

SURAKA, J., Docent Dr.

Cardiorheumatological Ward of the Regional Children's
Hospital (Kardiorevmatologische oddeleni krajske detske
nemocnice), Brno-Cerna Pole

Prague, Prakticky lekar, No 13-14, 1363, tel 507-503

"Progress in Child Cardiology."

VITEK, B.; SUMBERA, J.

Total congenital atrioventricular block in 10 children. Cesk. pediat.
18 no.2:129-134 F '63.

1. II. detska klinika lekarske fakulty UJEP v Brne, prednosta akademik
O. Teyschl.
(HEART BLOCK) (HEART DEFECTS CONGENITAL)
(HYPERTENSION PULMONARY)

SUMBERA, J.; VITEK, B.; VALENTA, J.

Coronary sinus and its diagnosis. Cas.lek.cesk.102 no.49:1337-
1342 6 D'63.

1. II. detska klinika lekarske fakulty UJEvP v Brne; prednosta:
akademik O.Teyschl.

*

NAVRATIL, J.; BEDNAR, O.; BEZNARIK, B.; OLEJNIK, O.; SUMERA, J.; KANIA, H.

Surgical correction of congenital heart defects with open heart
surgery. Cesk. pediat. 19 no.6:481-489 Je '64.

I. II. chirurgicka klinika (prednosta: prof. dr. J.Navrtil,
DrSc.), I.detska klinika (prednosta: prof. dr. Z.B. necky), II.
detska klinika (prednosta: prof. dr. M.Toman) lekarske fakulty
UJEPvP (University J.E.Purkyne), Brno.

GRABOVSKY, J.; RYBKA, P.; SVOBODA, J.; VILÍČEK, R.

Patent coarctus arteriosus with pulmonary hypertension in
children. I. Cesk.pediat. no.7:611-616. 31 '65.

Evaluation of the results of surgical treatment of children
with patent coarctus arteriosus combined with pulmonary hyper-
tension. II. Ibid.:617-620

J. M. dětská klinika Lekarské fakulty University J.E. Purkyně
v Brně (prednosta prof. dr. M. Toman, CSc.).

SPILKA, J.; MVA, R.

Defective opening of the pulmonary veins. Dark. partial. 47
no. C:607-610 - 21 'ts.

J. Karolin-reumatologische afdeling H. de Dtsche Milnity leusen
Fakultet University of U. Burkhardt Brue (professor prof. dr. W.
Zeman).

VITEK, B.; SUMMERA, J.; MRAZ, J.

Fatal ventricular paroxysmal tachycardia in a 5-year-old girl
with Ebstein's anomaly. Cesk. pediat. 20 no.11:980-983 N '65.

I. II. detska klinika (prednosta prof. dr. M. Toman, CSc.) a
Ustav soudniho lekarstvi (prednosta MUDr. S. Janousek, CSc.)
lekarske fakulty University J.E. Purkyne v Brne.

L 31442-66

ACC NR: AF6023190

SOURCE CODE: CZ/0082/65/028/005/0362/0367

18

B

AUTHOR: Dohnal, K.; Sumbera, J.; Zahradka, J.

ORG: Neurology Clinicheaded by Prof.-Dr. Karel Popek, Faculty of Medicine, UJEP, Brno (Neurologicka klinika lekarske fakulty UJEP); Second Pediatric Clinicheaded by Prof.-Dr. M. Toman, Candidate of Sciences/, Faculty of Medicine, UJEP, Brno (II detska klinika lekarske fakulty UJEP)

TITLE: Paroxysmal losses of consciousness and convulsions in congenital heart defects

SOURCE: Ceskoslovenska neurologie, v. 28, no. 5, 1965, 362-367

TOPIC TAGS: cardiovascular system disease, nervous system disease, hypoxia, biologic reproduction, man

ABSTRACT: Study of 424 children with congenital cardiovascular anomalies: 62 of these had episodes of convulsions or unconsciousness, including 49 out of the 201 patients who had cyanosis due to the cardiovascular anomaly. Oxymetric studies indicated that hypoxia did bring about the syncope but the degree and frequency of attacks showed no correlation with the degree of hypoxia. Orig. art. has: 2 figures and 2 tables. [Based on Eng. abst.] [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 001 / SOV REF: 001
OTH REF: 017

Card 1/1

09/2

10/1

SUMBERA, J.; VALENTA, J.; VITEK, B.; NOVAK, M.

Contribution to the oximetry of the blood in the right atrium.
Cas. lek. Cesk. 104 no.45:1237-1239 12 N '65.

1. II. detska klinika lekarske fakulty University J.E. Purkyne
v Brne (prednosta prof. dr. M. Toman, CSc.) a II. chirurgicka
klinika lekarske fakulty University J.E. Purkyne v Brne
(prednosta prof. dr. J. Navratil, DrSc.).

CZECHOSLOVAKIA

SUMBERA, J., BRAVENY, P; KRUTA, V: Physiological Institute,
Medical Faculty, J.E.Purkyne University (Fysiologicky Ustav Lek.
Fak. University J.E.Purkyne), Brno.

"The Influence of Sudden Temperature Changes on the Length of
Rest and Contraction of Chamber Myocardium."

Prague, Ceskoslovenska Fisiologie, Vol 15, No 2, Feb 66, p 117

Abstract: The authors studied an isolated heart suspended in a
bath containing Krebs-Henseleit's solution, where sudden tem-
perature changes between 15° and 35°C can be made within 1 to 15
seconds. The results obtained with various temperature changes
are described. 2 Czech references. Submitted at "16 Days of
Physiology" at Kosice, 29 Sep 65.

1/1

- 166 -

BRAVENY, P.; KRUTA, V.; SUMBERA, J.; Department of Physiology, Medical
Faculty of J.E. Purkyne University (Katedra fysiologie lek. fak. univ.
J.E. Purkyne), Brno.

"Slow Tonic Contractions and Atypical Course of Restoration of Myocardial
Contractility."

Prague, Ceskoslovenska Fisiologie, Vol 14, No 5, Oct 1965; p 339.

Abstract: Study of isolated left sinuses of guinea pigs exposed to high
stimuli, low temperature, high Ca++ level, epinephrine and other condi-
tions. The intensity of contraction could not be correlated with the
rapidity of restoration of contractility, suggesting an interplay of
multiple factors. Graph, 1 Western reference. Paper presented at the
15th Physiology Days, Olomouc, 27 May 65.

1/1

SUMBERG, Yu.D.

Brief news. Stomatologija 38 no.3:79 My-Je '59.
(MIRA 12:8)
(ROVNO PROVINCE--STOMATOLOGY)

STANOVIC, I.

Explanation of the proposed standard for fibrous asbestos. p. 65.
Explanation of the proposed standard for brick and tile. p. 66.
STANOVICKA, Beograd, No. 3, Mar. 1955.

cc: Monthly List of East European Accessions, (EAL), 16, Vol. 4, no. 10, Oct. 1955,
Incl.

SUMBULOVIC, Moco, ing. (Beograd)

Present development and prospects of nonmetallic industry in
Yugoslavia. Kem ind 9 no.12:N-51--N-54 D '60.

1. Clan Redakcionog odbora, "Nemetali"

SUMBULOVIC, Moco, inz.

Basis of mineral raw materials, and the seven-year plan.
Rudar glasnik 2:5-10 '63.

1. Sekretar Saveta industrije i rudnika nemetala Savezne
privredne komore, Beograd, glavni urednik, "Rudarski
glasnik. Bulletin of Mines".

SUMBULOVIC, Moco, dipl. inz.

A conference on the development of extractive industries
in Serbia. Rudar glasnik no.3:89-91 '63.

1. Sekretar Saveta industrije i rudnika nemetalnog Savezne
privredne komore, Beograd, glavni urednik, "Rudarski
glasnik Bulletin of Mines".

SUMELOVIC, Moco, dipl. inz.

Mines and processing of nonmetals in Austria. Rudar glasnik no.4:85-86 '63.

A conference on nonmetals, Ljubljana, 1963. 96-100

"A contribution to the flotation of magnesite" by [dr] Joseph Sibel, Reviewed by Moco Sumulovic. 104-105

1. Glavni urednik, "Rudarski glasnik, Bulletin of Mines".

SUMBULOVIC, Moco, inz.

Consultation on the hygienic, technical, and health protection
of the workers in nonmetallic industries and mines.
Rudar glasnik 2: 72-74 '63.

SUMBULOVIC, Moco, dipl. inz.

Yugoslav mining and metallurgy in 1963. Rudar glasnik 2:
91-96 '64.

I. Chief Editor, "Rudarski glasnik. Bulletin of Mines."

SUMBULOVIC, Moco, inz.

"General mining works" by [prof., inz.] Milovan Antunovic Kobliska. Reviewed by M. Sumbulovic. Rudar glasnik 2:118 '64.

"Opening, mining, and methods of extracting hard mineral deposits in underground works" by [prof., inz.] Milorad Petrovic. Reviewed by M. Sumbulovic. Ibid.:118-120

"Means of transportation in mining" by [prof., inz.] Ivan Arar. Reviewed by M. Sumbulovic. Ibid.:120

"Economic geology" by [prof. dr inz.] Slobodan Jankovic. Reviewed by M. Sumbulovic. Ibid.:120

"Economic evaluation of mines and colored metal deposits" by [prof. dr] Velimir Milutinovic. Reviewed by M. Sumbulovic. Ibid.:120-121

1. Chief Editor, [Rudarski glasnik. Bulletin of Mines.]

KUZ'MICH, A.S., redaktor; BARABANOVA, F.A., redaktor; BOHROV, I.V., redaktor;
VLADIMIRSKIY, V.V., redaktor; GRAFOV, L.Ye., redaktor; DOKUKIN, A.V.,
redaktor; YERASHKO, I.S., redaktor; ZABLUDSKIY, G.P., redaktor; ZADE-
MIDKO, A.N., redaktor; ZAYTSEV, A.P., redaktor; ZASADYCH, B.I., redak-
tor; KAGAN, F.Ya., redaktor; KRASNIKOVSKIY, G.V., redaktor; KRIVONOGOV,
K.K., redaktor; LALAYANTS, A.M., redaktor; MSLAMED, Z.M., redaktor;
MINDELI, E.O., redaktor; MOGILEVSKIY, N.M., redaktor; OSTROVSKIY, S.B.,
redaktor; POPOV, T.T., redaktor; SKOCHINSKIY, A.A., redaktor; SKURAT,
V.K., redaktor; SOBOLEV, G.G., redaktor; STUGAREV, A.S., redaktor;
SUMCHENKO, V.A., redaktor; TERPIGOROV, A.M., redaktor; SHEVYAKOV, L.D.,
redaktor; SHILKOV, A.A., redaktor; ANDREYEV, G.G., tekhnicheskiy redaktor

[Safety regulations in coal and shale mines] Pravila bezopasnosti v
ugol'nykh i slantsevykh shakhtakh. Moskva, Ugletekhnizdat, 1953. 226 p.
(MIRA 8:4)

1. Russia (1923- U.S.S.R.) Ministerstvo ugol'noy promyshlennosti.
(Coal mines and mining--Safety measures)

SUMCHENKO, S.S.

Improving the BTsR-1 furnace. Sakh.prom. 27 no.6:24-26 Je '53. (MLRA 6:6)

1. Vtoroy Gorodokskiy sakharinyy zavod.

(Furnaces)

LALAYANTS, A.M., redaktor; ABRAMIAN, A.A., redaktor; GRIEBERMAN, I.D., redaktor; DOKUKIN, A.Y., redaktor; ZASADYCH, B.I., redaktor; IVANENKO, G.I., redaktor; LETOV, N.A., redaktor; MELAMED, Z.M., redaktor; LIVSHITS, I.I., redaktor; LOKSHIN, V.A., redaktor; MONIN, G.I., redaktor; SIMCHENKO, V.A., redaktor; TOPCHIKOV, A.V., redaktor; SHEVALDIN, A.S., redaktor; SUROVA, V.A., redaktor; ANDREYEV, G.G., tekhnicheskiy redaktor; PROZOROVSKAYA, V.L., tekhnicheskiy redaktor.

[Material and equipment used in the coal industry] Materialy i oborudovanie, primeniamye v ugol'noy promyshlennosti; spravochnik Moskva, Ugletekhizdat. Vol.1 [Material---Wholesale prices in effect as of July 1, 1955] Materialy. Pt. 1.1955. 786 p. — Obtpvye tseny, vvedenye s 1 iuilia 1955. g. 192 p. [Microfilm] (MLRA 9:1) (Coal mining machinery) (Coal mines and mining)

LALAYANTS, A.M., redaktor; ABRAMYAN, A.A., redaktor; GUBERMAN, I.D., redaktor, DOKUNIN, A.V., redaktor; ZASADYCH, B.I., redaktor; IVANENKO, G.I., redaktor; LETOV, N.A., redaktor; MELAMED, Z.M., redaktor; LIVSHITS, I.I., LOKSHIN, V.A., redaktor; MOHIN, G.I., redaktor; SUMCHENKO, V.A., redaktor; TOFCHIYEV, A.V., redaktor; SHEVALDIN, A.S., redaktor; SIROVA, V.A., redaktor; ANDREYEV, G.G., tekhnicheskiy redaktor; PROZOROVSKAYA, V.L., tekhnicheskiy redaktor.

[Materials and equipment used in the coal industry; a reference manual]
Materialy i oborudovanie, primenyaemye v ugol'noi promyshlennosti;
spravochnik. Moskva, Ugletekhizdat. Vol.1.[Materials] Materialy. Pt.2.
1955. 544 p. (MIRA 9:5)

(Coal mines and mining--Equipment and supplies)

LALAYANTS, A.M., glavnnyy redaktor; ABRAMYAN, A.A., otvetstvennyy redaktor;
GUHERMAN, I.D., redaktor; DOKUKIN, A.V., redaktor; ZASADYCH, B.I.,
redaktor; LETOV, N.A., otvetstvennyy redaktor; LIVSHITS, I.I.,
redaktor; LOKSHIN, V.A., redaktor; MELAMED, Z.M., redaktor; MONIN,
G.I., redaktor; SUMCHENKO, V.A., redaktor. TOPCHIYEV, A.B., redak-
tor; SHIVALDIN, A.S., redaktor; YEGURNOV, G.P., redaktor; LYUBIMOV,
N.G., redaktor izdatel'stva; ANDREIEV, G.G., tekhnicheskiy redaktor;
PROZOROVSKAYA, V.L., tekhnicheskiy redaktor.

[Material and equipment used in the coal industry; a reference
manual] Materialy i oborudovanie, primenyaemye v ugol'noi pro-
mishlennosti; spravochnik. Moskva, Ugletekhizdat. Vol.2. [Equip-
ment] Oborudovanie. Pt.1. 1956. 455 p. (MIRA 10:4)

(Coal mines and mining--Equipment and supplies)

LALAYANTS, A.M., redaktor; ABRAMYAN, A.A., redaktor; GUBERMAN, I.D., redaktor;
DOKUKIN, A.V., redaktor; ZASADYCH, B.I., redaktor; LETOV, N.A.,
redaktor; LIVSHITS, I.I., redaktor; LOKSHIN, V.A., redaktor; MELAMED,
Z.M., redaktor; MONIN, G.I., redaktor; SUMCHENKO, N.A.; TOPCHIYEV, A.V.,
redaktor; SHEVALDIN, A.S., redaktor; TIGARNOV, G.P., redaktor;
LYUBIMOV, N.G., redaktor izdatel'stva; PROZOROVSKAYA, V.L., tekhnicheskiy redaktor

[Materials and equipment used in the coal industry; a reference manual]
Materialy i oborudovaniye, primeniamye v ugol'noi promyshlennosti;
spravochnik. Moskva, Ugletekhnizdat. Vol.2. [Equipment] Oborudovanie.
Pt.2. 1957. 485 p. (MIRA 10:9)

(Coal mining machinery)

LALAYANTS, A.M., glavnyy red.; ABRAMYAN, A.A., red.; GURERMAN, I.D., red.;
DOKUKIN, A.V., red.; ZASADYCH, B.I., red.; LETOV, N.A., red.;
LIVSHITS, I.I.; LOKSHIN, V.A.; MELAMED, Z.M.; MONIN, G.I.; SUMCHENKO,
V.A.; TOPCHIYEV, A.V.; SHEVALDIN, A.S.; YEGURNOV, G.P., red.;
LYUBIMOV, N.O., red.izd-va; PROZOROVSKAYA, V.L., tekhn.red.

[Materials and equipment used in the coal industry; a handbook]
Materialy i oborudovanie, primeniamye v ugol'noi promyshlennosti;
spravochnik. Moskva, Ugletekhizdat. Vol.2. [Equipment] Oborudovanie.
Pt.3. 1957. 655 p. (MIRA 11:2)
(Coal mines and mining—Equipment and supplies)

SUMEGH, N.

Grooves in forests. p. 385.

AZ ERDO. (Orszagos Erdeszeti Egyesulet) Budapest, Hungary, Vol. 8, No 10, Oct. 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11, November 1959.
Uncl.

SUMEGHY, Gabor, gépészmérnök

Organizational principles of component part programming in the
building joinery. Faipar 12 no.2:52-57 F '62.

1. Epitesugyi Miniszterium 6. Epuletasztalosipari Igazgatosag
Uzamszervezesi Iroda.

SUMEGHY, Jozsef

c/1956

1964

GEOLOGY

DECEASED

HUNGARY/Chemical Technology. Chemical Products and Their
Application. Ceramics. Glass. Binding Materials.
Concrete.

H-13

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5411.

Author : Sümeghy, Veronika.

Inst :

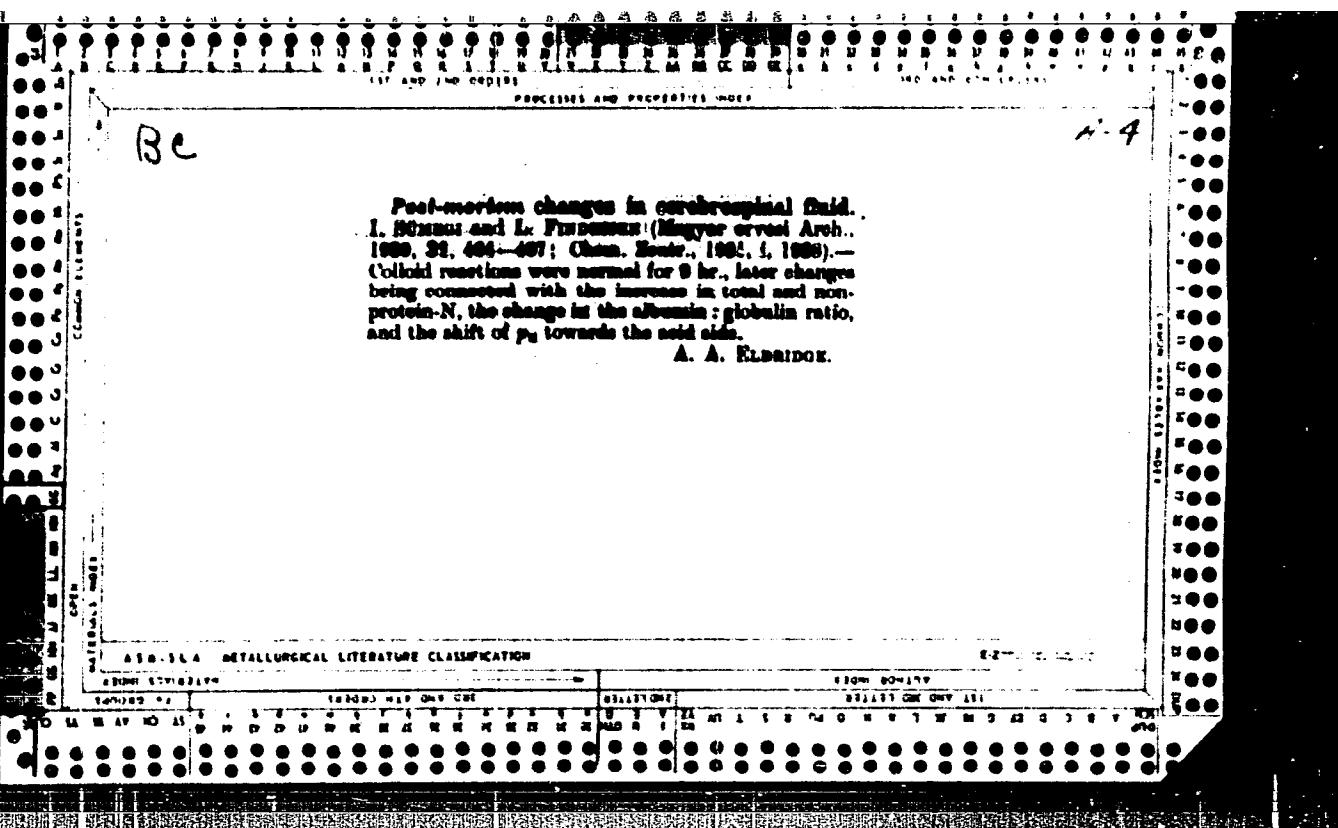
Title : Decorative Art in Ceramics.

Orig Pub: Epítőanyag, 1958, 10, No 4-5, 129-134.

Abstract: No abstract.

Card : 1/1

45



The formation of bile pigments in tissue cultures. J. SCHACHT AND M. CRABA
Magyar Orvosi Akad. Sz., 31, 473-7(1930).—The spleens of chicken embryos and those of
amphibians are able to produce bilirubin in tissue cultures from faked blood. The bile
pigments were identified by the indirect diazo reaction. Undissolved hemoglobin
(erythrocytes from the explantates) produces bilirubin in the same way but only in
traces. The formation of bile pigments is a vital function of the spleen. H. T.

SUVEGI

I. SUVEGI AND OTHERS

"Experimental data to the hepatorenal syndrome." p. 423 (ACTA MORPHOLOGICA
ACADEMIAE SCIENTIARUM HUNGARICAE, Vol. 2, no. 4, 1952, Budapest, Hungary)

SO: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.

LOWINGER, S.; KRASZNAI, I.; SUMEGI, I.

Antoagglutination in splenomegalic cirrhosis. Magy. belorv. arch.
5 no.1:2-6 Mar 1952. (CIML 25:4)

1. Doctors; Lowinger, deceased. 2. Internal Department C (Head Physician --Prof. Dr. Simon Lowinger, deceased), Peterfy Sandor-utca Hospital, Hungarian State Railroad Hospital, and EBI Prosectorium (Prof. Dr. Istvan Sumegi).

ROTH, I.; GORECZKY, L.; ERZSIBET, S.; SUMEGI, I.

Hepatitis and diabetes. Orv. hetil. 94 no. 37:1031-1035 13 Sept 1953.
(GLNL 25:5)

1. Doctors. 2. Hungarian State Railroads Hospital.

GORMECZKY, L.; ROTH, I.; SUMEGI, I.; VAJDA, Gy.

Defense symptoms of the lead poisoning. Acta med. hung. Suppl.
6 no.1:93-94 1954.

1. MAV - Krankenhaus, Budapest.
(LEAD POISONING, exper.
protective mechanism in rabbits)

SUMEGI, Istvan; GORECZKY, Laszlo; ROTH, Imre

Recent studies on the incidence of amyloid substance in malignant tumors. Kiserletes orvostud. 6 no.4:350-360 July 54.

1. Budapesti MAV Korbaz.
(NEOPLASMS, metab. in
amyloid substance)
(AMYLOID SUBSTANCE, metab.
in neoplasms)

SUMEGI, Istvan, dr.

The porphyrins. Orv. hetil. 95 no.30:801-808 25 July 54.

l.AMAV Korhaz es Kosp. Rendelo (gazgato-foorvos: Ol Lajos dr.)
kozlemenye
(PORPHYRIN)

GAAL, Magda, dr.; SUMEGI, Istvan, dr.

Pathogenesis and gastric and intestinal changes in influenza. Orv.
hetil. 95 no.51:1394-1398 19 Dec 54.

1. A MAV Korhaz es Kozponti Rendelointezet (igazgato: Oo Lajos, dr)
prosecturajanak kozlemeanya.

(GASTROINTESTINAL SYSTEM, in various dis.
influenza)

(INFLUENZA, manifest.
gastrointestinal system)

GAAL, Magda.; SUMEGI, I.

Pathogenesis of gastrointestinal lesions in influenza. Acta
morph. hung. 5 no.3-4:231-242 1955.

l. Institut d'anatomie pathologique de l'Hopital des Chemins de
fer de l'Etat Hongrois (Chef de l'Institut I. Sumegi: directeur
de l'Hopital:L.O.)

Magda Gaal, Budapest, XIV., Dozsa Gy. ut 116. Hongrie
Prof. Istvan Sumegi, Budapest, VII., Kertesz u. 50. Hongrie.

(INFLUENZA, pathology,
gastrointestinal, autopsy findings)
(GASTROINTESTINAL SYSTEM, in various diseases,
influenza, autopsy findings)

GORECZKY, Laszlo.; ROTH, Imre.; SUMEGI, Istvan.; VAJDA, Gyula.

Modification of content of protective substances in blood serum in acute lead poisoning. Kiserletes orvostud. 7 no.3:235-242 May 55.

1. Budapesti MAV-korhaz.

(LEAD POISONING, experimental,
blood in, bactericidal & other protective properties)
(BLOOD , in various diseases,
exper. lead poi., bactericidal & other protective
properties)

HOTH, Imre, dr.; GORECZKY, Laszlo, dr.; MOLNAR, Janos, dr.;
SUMEGI, Istvan, dr.

Recent studies on porphyrin ointment. Orv. hetil. 96 no.29:767-769
10 July 55.

1. A Budapesti MAV Korhas es Kozponti Rendelo Intezet (igazgato:
Oo Lajos dr.) kozlemenye.
(PORPHYRIN,
ointment)
(OINTMENTS,
porphyrin)

EXCERPTA MEDICA Sec 5 Vol. 10/9 Pathology Sept 57

2526. SÜMEGI I., GORECZKY L. and RÓTH I. Dept. of Path., Lab. and III. Dept. for Intern. Dis., Hung. State Railway's Hosp., Budapest. *Morphological data on quantitative changes in the normal antibodies of the serum in lead poisoning ACTA MORPH. ACAD. SCIENT. HUNG. (Budapest) 1956, 7/2 (183-197) Illus. 18

Rabbits were given lead acetate and haematoporphyrin, respectively. Experiments showed that the CNS and the interspinal ganglia showed marked vascular changes, viz: focal glial proliferation, haemorrhages and degenerative cellular changes. The ganglion cells and the Purkinje cells of the cerebellum, moreover, showed changes similar to fibrinoid necrosis. These changes are regarded as unspecific but none the less suggestive of cerebral anoxaemia changes. It is believed that there is a close correlation between the immunobiological manifestations and the morphological changes.

Juhász - Budapest

ROTH, Imre; GAAL, Magdolna; GORECZKY, Laszlo; SUMEGI, Istvan

Changes in the cellular composition of the islands of Langerhans in anaphylactic experiments. Experimental studies on the pathogenesis of diabetes mellitus. Kiserletes orvostud. 8 no.4:420-425 July 56.

1. Budapesti MAV Korhaz es Korponti Rendelo.

(ALLERGY, exper.

anaphylaxis, eff. on cellular composition of islands of Langerhans in dogs, relations to diabetes mellitus pathogen. (Hun))

(ISLANDS OF LANGERHANS, pathol.

eff. of exper. anaphylaxis on cellular composition in dogs, relation to diabetes mellitus pathogen. (Hun))

HUNGARY /General Problems of Pathology - Tumors. Immunity. U.

Abs Jour : Ref Zbir - Biol., No 2, 1959, 3786

Author : Vajda Gyula, Goreczky Laszlo, Roth Imre, Simegi Istvan

Inst : -

Title : The Depressive Effect of Malignant Tumors on the Reti-
culo-Endothelial System

Orig Pub : Kiserl. Ervestud., 1957, 9, No 4, 396-400

Abstract : In rats with a Guerin carcinoma a Cryptococcus neoformans suspension injected intravascularly was found to be eliminated from the blood only after 21 minutes (in the control, three to ten minutes). The elimination time of India ink was also delayed in cancerous rats (26 minutes compared with control of 10-15). The injection of defatted carcinoma tissue subcutaneously into rats for five to 10 days delayed the elimination of Congo red from the blood stream. -- A.N. Ivanov

Card 1/1

SUNEGI, Istvan; GORECZKY, László; ROTH, Imre

Morphological data on the quantitative changes in protective substances of the serum in lead poisoning. Kísérleti orvostud. 8 no.4:428-438 July 56.

1. Budapesti MAV Korhaz es Kosponti Rendelointezet Prosekturaja,
Kosponti Laboratoriuma es III. Belosztalya.

(LEAD POISONING, exper.

pathol. changes in NS of rabbits, immunobiol. aspects
(Hun))

(NERVOUS SYSTEM, eff. of drugs on
exper. lead pois., pathol. changes, immunobiol. aspects
(Hun))

SUMEGI

VAJDA, Gyorgy; GORECZKY, L.; ROTH, I.; SUMEGI, S.

Cytotropic effect of tumor cells. Acta microb. hung. 1 no.4:
331-337 1954.

1. Aus dem Krankenhaus der Ungarischen Staatsbahnen.
(NEOPLASMS
tumor cells, cytotropic eff.)

SUMMARY, part I

Geriatrics and gerontology in countries of Western Europe.
Vinn. vestn. M no.122-26 '66

1. In Francja obiekt spłosne biurowe - Raper (predstojnik ds. Bieguna Serfoglia).

SUMENOV, K.

Restoring kinescope cathode emissions. Radio no.5:27 My '55.
(Television--Picture tubes) (MLRA 8:6)